

DESCRIPTION OF DEVICE

The Moniteur Valve Position Transmitter is an electro-mechanical device that produces an analog output signal representative of the angular displacement of a quarter turn valve, or other device operating between 0 and 90 degrees.

FACTORY SETTINGS

Clockwise - to - Close operation (see fig A)

Resistive: 0 - 1k Ohms (selectable)

Current: 4mA Closed , 20mA Open

INSTALLATION

Install the Valve Position Transmitter to the valve/actuator package. Remove the enclosure cover and wire unit to the appropriate terminal points. Provided power must be within the operating specifications of the devices.



CAUTION: To reduce the risk of ignition of hazardous atmospheres, disconnect the device from the supply circuit before opening. Keep assembly tightly closed during operation.



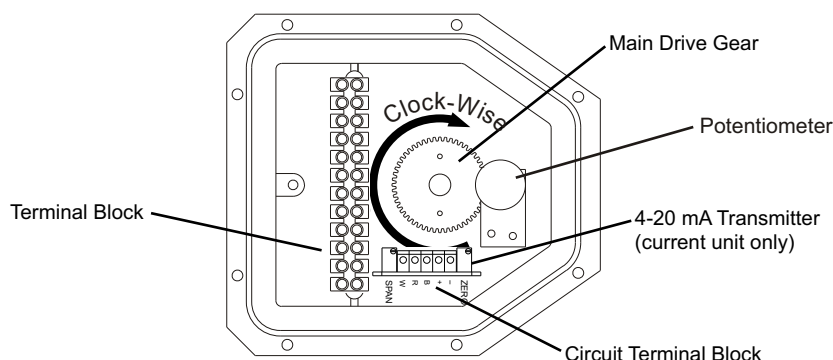
CAUTION: Keep fingers and all objects away from moving gears. Never cycle or move the valve while adjusting the transmitter.



Calibration Procedure (Resistive Output Models)

1. Verify the position of the valve/actuator package to ensure that the valve is in the position where the resistive reading will be '0' ohms. (Normally the valve closed position)
2. For clockwise to close operation (see fig. A) use an ohmmeter to measure resistance between terminal points 9 and 10 on the terminal strip. For counter-clockwise rotation to close, measure resistance between terminal points 10 and 11 on the terminal strip. In this position, the meter should read "0 ohms" or slightly higher.
3. If the resistive output does not read near "0 ohms" then a macro adjustment must be made. This is adjusted by by disengaging the main drive gear. Lift the large center gear slightly from the main transmitter shaft and rotating the main gear until the desired reading is achieved. Release the main drive gear so that it re-engages with the main drive shaft.
4. Cycle the valve/actuator package to the full open position. Reading at 90 degrees of rotation should be close to 1000 ohms +/- 20% . (Less for smaller rotations, more for larger)
5. Cycle the valve, re-check the output. Re-calibrate if necessary.
6. Close the transmitter housing. **Tighten all screws.**

Figure A



Calibration Procedure (Resistive Output Models)

Instructions for clock-wise to close operation. See *reverse instructions* for counter-clock wise to close.

1. Verify the position of the valve/actuator package to ensure that the valve is in the 4mA reading position (normally the valve closed position).
2. Connect positive and negative leads to the appropriate terminal points. Insure that voltage values are within units rated values.
3. Connect a milliamp meter to the circuit. Lift the large center gear slightly from the main transmitter shaft and begin to rotate **clockwise**. Watch the amp meter while rotating. Reading will slowly decrease until the potentiometer's limit has been reached. At this point, the milliamp output will jump or zero out. Stop rotation of the main gear. Rotate the main gear **counter-clock-wise** approximately 1 tooth (10degrees).
4. Release the main drive gear so that it re-engages with the main drive shaft.
5. With a small screw driver, turn the adjustment screw on the transmitter board adjustment pot("zero") until the meter reads 4mA (See Fig A).
6. Cycle the valve 90 degrees to the full open position.
7. Turn the adjustment screw on the transmitter board adjustment pot ("span") (See Fig. A) until the meter reads 20mA.
8. Cycle the valve and recheck outputs at both ends of stroke. Make readjustments as necessary.
9. Close the transmitter housing. *Tighten all screws.*

Reverse Instructions

To use the transmitter with valve systems that rotate in the counter-clock-wise direct to close, remove all power from the system. On the circuit board terminal block, the BLACK and WHITE wire leads must be switched. Connect the BLACK lead to the terminal point marked (W) and the WHITE lead connected to the terminal point marked (B). Tighten terminal block screws. Lastly, when following directions listed above, reverse the rotation (words in bold print) of the directions. (i.e. clockwise becomes counter-clock-wise). Follow directions above.

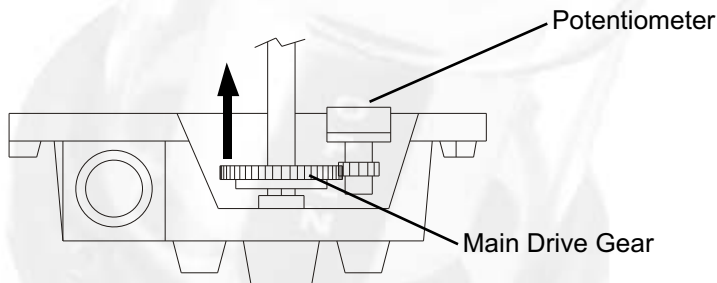


Figure B